

IOWA STATE UNIVERSITY

Digital Repository

Integrated Crop Management News

Agriculture and Natural Resources

4-20-2010

Crop and Weather Report – April 19, 2010

S. Elwynn Taylor

Iowa State University, setaylor@iastate.edu

Follow this and additional works at: <http://lib.dr.iastate.edu/cropnews>



Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), [Agronomy and Crop Sciences Commons](#), [Climate Commons](#), and the [Meteorology Commons](#)

Recommended Citation

Taylor, S. Elwynn, "Crop and Weather Report – April 19, 2010" (2010). *Integrated Crop Management News*. Paper 464.
<http://lib.dr.iastate.edu/cropnews/464>

This Article is brought to you for free and open access by the Agriculture and Natural Resources at Digital Repository @ Iowa State University. It has been accepted for inclusion in Integrated Crop Management News by an authorized administrator of Digital Repository @ Iowa State University. For more information, please contact digirep@iastate.edu.

[Subscribe to Crop News](#)

Archives

[2015](#)
[2014](#)
[2013](#)
[2012](#)
[2011](#)
[2010](#)
[2009](#)
[2008](#)
[Previous Years](#)

ISU Crop Resources

[Extension Field Agronomists](#)
[Crop & Soils Info](#)
[Pesticide Applicator Training](#)
[Agronomy Extension](#)
[Entomology Extension](#)
[Plant Pathology Extension](#)
[Ag and Biosystems Engineering Extension](#)
[Agribusiness Education Program](#)
[Iowa Grain Quality Initiative](#)
[College of Agriculture and Life Sciences](#)
[ISU Extension](#)

Integrated Crop Management NEWS

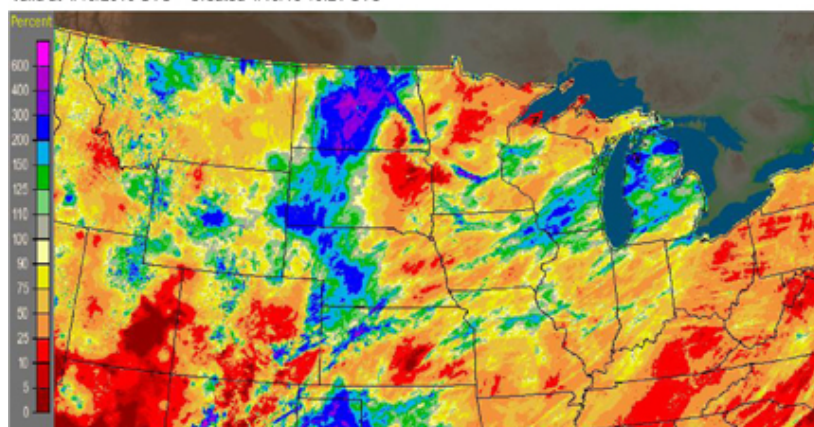
Crop and Weather Report – April 19, 2010

By Elwynn Taylor, Department of Agronomy

Crop planting is progressing rapidly in much, if not most, of the Corn Belt. Nineteen percent of Iowa's expected corn acres were planted as of April 18. This is well ahead of the five-year average of 5 percent, which is where planting was in 2009 on this date. Most of the central production area is also progressing well. The USDA [weekly "Crop Progress" report](#) is searchable by state.

Percent of Normal Precipitation since April 1, 2010

NWS Central Region: Current Month to Date Percent of Normal Precipitation.
Valid at 4/19/2010 UTC – Created 4/19/10 19:21 UTC



West Central Iowa has areas receiving less than one-fourth of normal precipitation since April 1. Graphic from <http://water.weather.gov/precip/>

Seventy percent of Iowa's farm land has received less than usual precipitation during the past three weeks. Temperatures have averaged above normal for all but two days of the past three weeks in most of Iowa. The conditions to date are considered favorable for planting and crop establishment. Forecasts for cooler and moist weather in the western half of the Corn Belt may signal a shift to the persistent pattern of cooler than usual temperatures and above normal precipitation that were characteristic of 2009.

The relatively brief El Nino of the past several months appears to have diminished strength. The atmospheric pressure aspect of the El Nino event retreated to -0.8 standard deviation from (below) normal today (19 April 2010) just five months after reaching the level of significance. This is in keeping with the past two El Nino episodes that persisted three and five months only, somewhat of a departure from the three-year episode experienced in the early 1990s.

The departure of El Nino does not signal adverse impacts on Midwest crop success. Still there is a memory of several instances of a sudden change from

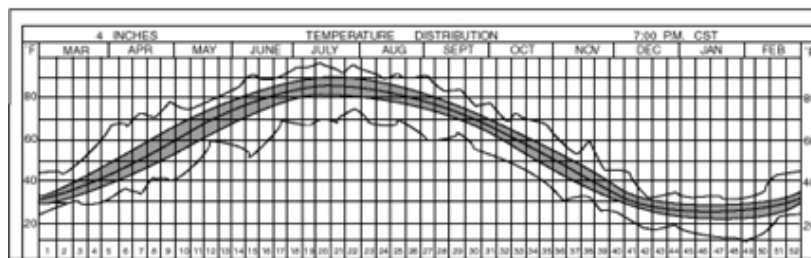
El Nino to La Nina and accompanying drought-like conditions. Historically the chance of below average corn yield for the U.S. is about 45 percent, but during El Nino the chance of a below trend corn yield reduces to 30 percent and during La Nina summers the risk increased to near 70 percent chance of below trend crop yields. Most forecasts give the chance of switching to summertime La Nina odds of less than one chance in five.

Iowa soil temperatures

Daily [soil temperature reports](#) for Iowa are available online. Observed temperatures are interpolated to provide estimated values for each county. The 2010 soil temperature is exactly on schedule according to the history of observations in Iowa. By the second week of May it is extraordinary to have central Iowa soil temperature drop to 50 F or below. Although some colder than average temperatures must be anticipated between late April and mid-May, each day of normal temperature diminishes the risk of a damaging cooling of soils.

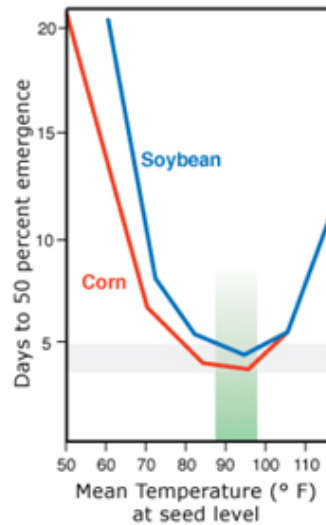
The damage of a soil cool down this time of year is not so much freezing as it is experiencing of temperatures below the threshold for normal crop growth and development. When temperatures are not sufficient for vigorous plant growth the crop becomes increasingly susceptible to injury from agricultural pests (disease, weeds, and insects).

Central Iowa Soil Temperature



Weekly average soil temperatures (beginning with March 1 as the first day of the first week of the climate year) are indicated by the central curve in the graphic. A shaded region about the line shows the historical standard deviation around the average for the week. The irregular lines above and below the shaded track delimit the extremes of temperature observed for specific weeks. The lowest temperature for plant growth is called the base temperature. The base temperature for Midwest corn is very near 50 F. *Data from Iowa State University Department of Agronomy.*

Influence of Soil Temperature on Crop Emergence



Effect of soil temperature on emergence of corn and soybeans. Emergence is slow at temperatures near 50 F (10 C). Emergence is rapid near 90 F (32.2 C). Graphic assumes that soil moisture is near ideal for plant establishment. *Graphic from Elwynn Taylor*

Elwynn Taylor is Iowa State University Extension Climatologist and can be reached at setaylor@iastate.edu or by calling (515) 294-1923.

This article was published originally on 4/20/2010. The information contained within the article may or may not be up to date depending on when you are accessing the information.

Links to this material are strongly encouraged. This article may be republished without further permission if it is published as written and includes credit to the author, Integrated Crop Management News and Iowa State University Extension. Prior permission from the author is required if this article is republished in any other manner.